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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,698	12/08/2003	Jason D. Hanzlik	10395US01	3984

7590

03/17/2006

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EXAMINER

HAUGLAND, SCOTT J

ART UNIT

PAPER NUMBER

3654

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/730,698	Applicant(s) HANZLIK ET AL.	
	Examiner Scott Haugland	Art Unit 3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-6, 10, 12-15, 17, 19-23, 25, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Morita et al (U.S. Pat. Appl. Pub. No. 2002/0158161).

Morita et al discloses a tape reel assembly for a data storage tape cartridge comprising: a hub 21 defining a tape winding surface and teeth (teeth on gear 42; teeth 63) formed from a polymer including a lubricating additive (par. 119, p. 5). The teeth on gear 42 and teeth 63 are seen to be outwardly projecting relative to one of the ends of the tape winding surface as recited in claims 1 and 17 since they both point in a direction that leads away from the surface.

The teeth of restraining member 4 are seen to be driven teeth since they are driven upwardly (e.g., in Figs. 2 and 3) when drive means 11 engages the tape reel assembly, they would be driven by the reel when the cartridge is moved due to inherent play in the connection between protrusion 33 and groove 45 in the restraining member

4, and they are capable of being driven in rotation about the central axis of the restraining member 4 when it is appropriately mounted.

The teeth 63 of the releasing member 6 are driven upwardly when drive means 11 engages the tape reel assembly and are driven to rotate by the drive means 11 during normal recording/reproducing operation of the tape reel assembly.

With regard to claims 3, 12, and 22, Morita discloses flanges 41, 61 which extend radially (inwardly) from hub 21.

With regard to claims 4 and 13, the hub is seen to include elements 21, 2, 4, and 6.

With regard to claims 5, 14, and 23, Morita et al discloses that the lubricating additive is polytetrafluoroethylene, silicone, etc. (par. 119, p. 5).

With regard to claims 6 and 15, Morita et al discloses that the polymer is glass-filled polycarbonate (par. 119, p. 5).

With regard to claim 10, note that Morita et al discloses a housing 3 forming an enclosed region containing the tape reel assembly and that the teeth on gear 42 and the teeth 63 are exposed within the opening 32a in the housing.

With regard to claims 19, 20, and 21, each of elements 4 and 6 are seen to read on the recited hub having flange portion 41 or 61.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 7-9, 11, 16, 18, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morita et al (U.S. Pat. Appl. Pub. No. 2002/0158161) in view of Boutni (U.S. Pat. No. 4,749,738).

Morita et al is described above.

Morita et al does not disclose a polymer including up to 25%, 2-10%, or 5% by weight of lubricating additive. Morita et al does not disclose polycarbonate that is 20% glass-filled and containing approximately 5% by weight of polytetrafluoroethylene.

Boutni teaches forming machine elements including gears of a compound comprising polycarbonate, 20% glass fiber, and 5% polytetrafluoroethylene (see example 9, col. 10).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the teeth of the reel assembly of Morita et al of a polymer having 5% polytetrafluoroethylene lubricant as taught by Boutni to provide the teeth with good strength and wear resistance.

Response to Arguments

Applicants' arguments filed 1/16/06 have been fully considered but they are not persuasive.

Applicants argue that Morita does not teach or suggest a hub defining a tape winding surface that includes a first end and an opposing second end and driven teeth projecting outwardly relative to one of the opposing ends of the tape winding surface and defining an engagement surface, where the driven teeth are formed from a polymer including a lubricating additive, as required by claim 1. However, the teeth of gear 42 and teeth 63 are seen to read on the claimed driven teeth. The language of the claims requiring the teeth to project outwardly relative to one of the opposing ends of the tape winding surface is seen to specify a direction in which the teeth extend and these teeth all extend in the same direction which leads away from the hub and winding surface. Morita discloses that the teeth are formed from a polymer including a lubricating additive.

Applicants argue that Morita does not teach or suggest a housing defining an enclosed region and an opening communicating with the enclosed region, at least one tape reel assembly rotatably disposed within the enclosed region and including: a hub defining a tape winding surface, and driven teeth defining an engagement surface, where the driven teeth are exposed within the opening in the housing upon final assembly and are formed from a polymer including a lubricating additive, as required by claim 10. However, teeth on gear 42 are exposed to wall 21a and protrusions 27 of reel hub 21 for interaction with them upon final assembly. The teeth, wall 21a, and protrusions 27 are within the opening. Teeth 63 are exposed to drive means 11 upon final assembly which accesses the teeth within the opening.

Applicants argue that there is no suggestion in the references to modify the reel 2 of Morita to include driven teeth having additives taught by Boutni since a reasonable expectation of success must be found in the prior art. However, since Boutni teaches forming machine elements including gears of the claimed composition, an ordinary artisan would have a reasonable expectation of the success of forming the teeth on gear 42 and teeth 63 of the tape cartridge of Morita of the claimed composition.

Applicants argue that even if the combination of Morita and Boutni were made, the resulting device would merely provide the reel rotation restraining means 10 of Morita with polymer compositions taught by Boutni. However, the teeth on gear 42 and the teeth 63 of the reel rotation restraining means 10 read on the claimed teeth. While the reel rotation restraining means 10 of Morita is seen to form part of the reel hub, the independent claims do not even require the teeth to be part of the hub.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Haugland whose telephone number is (571) 272-6945. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sjh
sjh
3/8/06

Kathy Matecki

**KATHY MATECKI
SUPERVISORY PATENT EXAMINER
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